Digital Tools for the Correct Use of the Slovenian Language in Mathematic Classes in Secondary Vocational School

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ABSTRACT

Electronic grammar and spelling-checking tools can be valuable for improving language skills in both spoken and written communication. These tools, such as Language Tool and Editor in Word, offer grammar and spelling suggestions for correction, while applications such as InstaText or Grammarly can analyse word usage and sentence structure in a particular language, such as English. The aim of this article is to explore useful tools available to Slovenian students to improve their writing skills. It examines the tools that students use to improve their writing and the extent to which they use modern technology to do so. The present study is based on triangulation and survey. The research was carried out at the Secondary Vocational and Technical School of Mechanical Engineering, where the author teaches mathematics. A total of 57 students responded to the survey. We found that students know about online portals for text improvement, but they don't use them. A few of them know about and use word editors. The reasons for this vary, including limited awareness of the usefulness of the tool, lack of motivation, or the understanding that these tools are tools rather than substitutes for developing writing skills. To address this issue, it is crucial to raise students' awareness of how electronic tools can help to improve grammar and writing skills. Encouraging their use during the learning process is essential. However, it is equally important to emphasise the importance of regular writing practice and learning from mistakes as essential components of skill development.

keywords: Education, Grammar Skills, ICT, Writing Editor, Writing Skills

1. Introduction

Modern technology is also having an increasing impact on education. In the circumstances we experienced during the pandemic, both educators and students had to rely heavily on information and communication technologies (ICT) to facilitate teaching and learning. As a result, the education sector needs to adapt and adopt new pedagogical approaches and strategies, while educators themselves need to develop their digital literacy. To meet these evolving needs, teachers, students, and other educational staff need appropriate training and continuous professional development. This training should include subject matter expertise, pedagogical knowledge, practical skills and familiarity with the necessary infrastructure and tools. By equipping educators with the right skills, they can effectively use technology in their teaching practice and promote enhanced learning experiences (Ratheeswari, 2018).

In the field of educational development, teachers are key actors in the introduction of information and communication technology (ICT) into the teaching process.

The path to effective ICT integration depends on knowledge of technology. The modern teacher has a responsibility to go beyond the traditional boundaries of teaching and to use

technology as a powerful tool to improve pedagogy. By fostering an understanding of the potential of technology, teachers create a new dimension of teaching in which innovation and tradition are reconciled (Bindu, 2016). It is essential that teachers are skilled in ICT, because only when a teacher has a certain knowledge of ICT can he or she pass on this knowledge to the students.

ICT has many positive benefits for learning. It can enhance educational opportunities and transform the processes of teaching and learning. In addition, teachers need to encourage students to be active learners to engage in active knowledge construction. This involves openended learning situations rather than learning conditions that focus on the mere transmission of facts. ICT can also act as a tool for curriculum differentiation and is also a transformative tool if used effectively for the classroom atmosphere. Most importantly, teachers and learners must be able to use learning time effectively (Bindu, 2016).

By using technology and incorporating different tools into the classroom, educators can create engaging and dynamic learning environments. These resources provide opportunities for modern teaching approaches, interactive instruction, and effective learning strategies, ultimately enhancing the educational experience for both teachers and students (Haidari & Yusof, 2020).

Preparation for life in the information society should go beyond the traditional 'information technology' subject and be integrated into the curricula of various disciplines. Young people need guidance in acquiring the most up-to-date knowledge in this rapidly evolving field. In our interconnected world, the role of the educator has changed to that of a guide, a transition that is gaining momentum as technology advances. In this digital age, a teacher's role on educational platforms is not only to facilitate students' understanding of how to use information in their daily lives, but also to broaden their intellectual horizons (Tondeur, 2019).

A school's responsibility is to equip students for effective participation in the information society, and this means incorporating multimedia technologies into the educational process. Using these tools, educational institutions empower students to navigate the complexities of the modern world (Kuchai et al., 2022).

Numerous studies show that ICT skills have significantly improved resource efficiency, significantly reduced production costs and led to much higher demand and investment in all sectors of the economy (Habibi & Zabardast, 2020).

Writing skills in any language serve to communicate and interact in everyday life. Contemporary communication underlines the paramount importance of fostering the ability to produce intelligible written expression, especially on different platforms on the Internet, but also in emails and other communication applications. Teachers are faced with the task of engaging learners in the art of writing, transcending traditional boundaries by making use of the rich repertoire of resources and tools that the digital age has provided (Espinoza-Celi & Pintado, 2020). It is not limited to the contours of a first or foreign language. It permeates all domains and crosses different subjects and activities. Becoming proficient in writing cuts across academic disciplines and provides learners with an essential skill that extends beyond the classroom.

Effective writing in a foreign language depends on three things: a deep understanding of the subject matter, a wide range of vocabulary and appropriate use of grammar (Calkins & Ehrenworth, 2016). In this sense, some authors mention that vocabulary is important for the mastery of any language (Espinoza-Celi & Pintado, 2020).

Some authors recommend metacognitive strategies, which include elements such as self-planning, self-monitoring, and self-regulation, and have the potential to significantly improve

the texts produced by secondary school students. These integral activities within the metacognitive framework act as stimulators, fostering the refinement of learners' linguistic and cognitive skills in writing. Through these strategic efforts, students cultivate a heightened awareness of the intricate layers underlying their composition, resulting in the creation of texts characterised by quality and depth (Cer, 2019).

Other authors recommended the use of different technological tools, exploiting their potential to promote robust student engagement and enhance understanding. Among these transformative tools, social networks, virtual learning environments and microblogging services stand out. Of these, Twitter emerges as a particularly pervasive choice due to its userfriendly interface and widespread popularity (Espinoza-Celi & Pintado, 2020). A dynamic micro-blogging platform such as Twitter has the potential to be seamlessly integrated into daily classroom activities. Its hallmark - constant communication - is a powerful factor that brings constant connectivity to the learning ecosystem. In doing so, Twitter unfolds a spectrum of possibilities: it provides an avenue for diverse work alternatives, serves as a repository of invaluable resources, and seamlessly embeds enriching content. Moreover, Twitter's inherent versatility further enhances its usefulness. Armed with the platform's capabilities, students can seamlessly curate and share an eclectic range of content. From images that vividly illustrate concepts, to audio snippets and video fragments that add dynamism, the microblogging canvas becomes an expansive space for multifaceted expression. Twitter serves as an avant-garde extension of the traditional classroom, blending with modern technology to create an enriched and interactive learning environment (Allam, Elyas, Bajnaid, & Rajab, 2017).

In some of the articles, the authors argue that social networking also improves interaction between teachers and students outside the classroom, increases students' knowledge, motivation, and self-confidence, and helps to improve their vocabulary skills. The authors suggest using the Google+ platform for student writing lessons (Mohammad et. al, 2018).

This research aims to investigate the extent to which secondary school students are familiar with and use digital tools to improve their seminar papers. The objectives of this study include several key aspects, namely: to provide an overview of the digital tools available for better writing skills, to investigate the use of these tools among secondary school students and to investigate the prevalence of language tools among students at our school. It also aimed to determine the usefulness of the tools in improving the writing of seminar papers and other assignments, and the extent to which students use the language tools available online to improve their writing and identify their preferred choices. By comprehensively investigating these objectives, we aim to shed light on the level of digital tool adoption among secondary school students. Furthermore, these findings will help to inform educational practices and strategies aimed at optimising students' use of language tools in classes.

2. E-Tools for Better Writing

There are several benefits of using ICT in the learning process. One of the benefits is the improvement of the teaching and learning experience. By using technology, teachers can create more interactive and engaging lessons that cater for different learning styles. This can help students retain information and improve their learning performance. In addition, ICT training can help teachers keep up to date with the latest teaching methods and tools, enabling them to provide a more effective and efficient learning experience for students. A key contribution of ICT in education is that it brings inclusion. Pupils with special needs are no longer disadvantaged as they have access to essential materials and special ICT tools can be used by them to use ICT for their own educational needs. Children are fascinated by technology because it encourages and motivates them to learn (Ratheeswari, 2018).

The integration of electronic tools, applications and software into teaching practice represents a fundamental evolution in educational methodology. It heralds a period in which technological innovations will work in synergy with traditional pedagogical approaches to increase the effectiveness of the acquisition and improvement of writing skills. By ensuring that these resources are readily available in a variety of contexts and settings, educators can achieve richer and more flexible learning pathways (Amponsah & Stonier, 2020).

2.1. E-Tools for Foreign Language

Corpora are a technological tool in the field of language learning, mainly due to their extensive lexicographic resources (Frankenberg et al., 2019). The corpus is primarily about explanation, presented as a collection of speeches, dialogues, compositions and other linguistic artefacts that learners use to unravel and explain the complexities of language (Dash & Arulmozi, 2018).

The London-Lund corpus, for example, is a vast repository of some 435,000 spoken words of British English. In essence, this repository encapsulates slices of authentic linguistic expression. Within its boundaries is a mosaic of 5000-word samples. This corpus includes telephone conversations, face-to-face discourse, dialogues, lectures, and radio commentaries (Stubbs, 2001). As such, corpora such as the London-Lund corpus allow learners to immerse themselves in the vibrant landscape of language as it is naturally used in real-world contexts (Shadiev & Yang, 2020).

In the literature, Facebook, Twitter, Instagram, and other social networking platforms are mentioned as good for language acquisition. Schreiber's work describes extensive research into the linguistic practices of a Serbian university student on Facebook. In this study, the language student manoeuvred between complex linguistic variations and seamlessly intertwined different genres of English and Serbian (Schreiber, 2015).

Yundayani suggests using the graphic design tool Canva, an easy-to-use visual technology platform characterised by drag-and-drop functionality. This tool opens doors to a vast array of resources, with a collection of over a million photos, graphics, and fonts. Its repertoire includes numerous images, photo filters, icons, shapes, and a variety of fonts. From the experiences of students who have integrated Canva into their workflow, it offers great benefits in improving their writing performance. By allowing them to seamlessly incorporate images, colours, pictures, photographs, fonts, and graphics, Canva provides them with the tools they need to develop their writing ideas (Yundayani et al., 2019).

Computer programmes for automatic feedback are also a useful tool. This mechanism differs from traditional personal corrective feedback (Rassaei, 2019) and acts as a substitute for teacher feedback (Li et al., 2015). When learners input language material into the automated feedback system, it provides immediate feedback. This feedback helps to correct grammar problems at sentence level. This approach frees teachers to focus on more complex issues (such as content and discourse) and allows learners to self-correct their work without having to consult teachers.

An example of such a tool is ChatGPT, which is not only useful for correcting essays and reviewing papers, but also for class scheduling and reminders, personalised learning, student engagement, research assistance, tutoring and support. Such tolls will change the future of education. Overall, ChatGPT has the potential to increase student participation and motivation in online courses and to improve student performance. However, these roles are stated by ChatGPT and although some of them are possible now, some others are potential uses for the future as its database and analytical skills, such as writing, become better (Biswas, 2023).

Mompean and Fouz-González explore the use of Twitter to refine pronunciation skills in the field of language learning and teaching. In their study, they conclude that the students' pronunciation skills have improved, a testament to the effectiveness of this digital medium in promoting linguistic progress (Mompean & Fouz-González, 2016).

Haidari highlights the many benefits associated with integrating social media and wikis and stresses that they can have a positive impact on students' writing skills. However, the researchers advise that educators need to maintain a balanced perspective and consider pedagogical aspects when planning activities. This means using effective pedagogical strategies and teaching and learning dynamics. The present study focuses on a comprehensive investigation of the use of social media and wikis and their profound effects on students' writing skills. The findings show that the deliberate use of different technological platforms and tools in the field of social media and wikis not only improves learners' language skills and competences, but also extends its positive impact to a wider range of competences. These include the development of teamwork, critical thinking, collaborative engagement, and collaborative problem-solving skills (Haidari, et. al., 2020).

WeChat is emerging as a dominant application within the Chinese-speaking community as a widely used social networking application. For non-native Chinese speakers who wish to grasp the nuances of the language, WeChat is an invaluable tool. Xu and Peng found that the integration of WeChat resulted in a noticeable improvement in language proficiency. In addition to quantitative progress, the study also revealed a positive atmosphere among learners, demonstrating the platform's unique potential to promote language growth. Thus, through technological integration and pedagogical innovation, WeChat emerges as a tool that not only refines speaking skills, but also fosters an environment of enthusiasm and receptivity among learners (Xu & Peng, 2017).

In the past decade and especially after the pandemic, a lot of different ICT tools has made, from hypertext-driven Internet platforms to interactive learning objects, audiovisual aids, forums, chats, instant messaging, blogs, whiteboards, wikis, and even the ubiquitous iPod. These tools collectively offer a blend of synchronous and asynchronous communication modalities. In recent times, a noteworthy shift has occurred, characterized by an increasing allure toward mobile phones. The ubiquity of mobile phones is staggering, with most individuals possessing at least one such device. These devices have found their way into various domains, from the professional realm where employees wield them, to the realm of education where students, despite institutional regulations against their use in classrooms, wield them too. So-called m-learning is spreading, because it represents an effective teaching tool for the teacher (Vinci, 2007).

2.2. E-Tools for Slovenian Language

The impact of technological advancements extends to the field of writing and learning the Slovenian language, providing teachers with access to electronic text collections and portals. However, the utilization of these resources still relies on individual teachers and their technological proficiency, familiarity with existing tools, portals, and text repositories, linguistic awareness, and willingness to stay updated with linguistic technological developments. It is essential for educators to actively monitor and embrace linguistic technology advancements to effectively integrate these resources into their teaching practices.

Significant progress has been made in the field of linguistics in Slovenia over the last decade. Various linguistic tools and resources have been developed, including Fran, Jezikovna Slovenija, Clarin, CJVTvejice and Slovenščina.eu. These initiatives have put Slovene on a par

with other prominent European languages, enabling modern approaches to teaching and the widespread use of interactive materials (Verdonik, 2015).

Some language tools in Slovenia for the Slovene language (Logar et. al., 2020):

- Gigafida is a large and thoughtfully built reference corpus containing 1,134,693,933 words from 38,310 texts created between 1990 and 2018. The Gigafida 2.0 corpus is a fundamental data source for modern Slovene and is used for linguistic research, language description (dictionaries, grammars) and the development of language technologies and procedures. Unlike previous editions, the 2.0 version is a corpus of standard Slovene, which means that it contains mainly texts written in standard language,
- The Šolar corpus is a language acquisition corpus, containing about 350 texts have been manually corrected with error flags, and a newer version of machine markup has been applied. As a result, the formatted annotations are more reliable and new annotations are available, such as dependency syntax and named entities. The corpus is available in the CLARIN.SI concordances, separately for the students' source texts and for the teacher's corrected texts,
- CJVTvejice is a web-based tool for placing commas. The tool is easy to use paste up to 3,000 characters of text into the box and press the red arrow. The tool then highlights missing commas in grey and redundant commas in blue. It is designed to help with comma spacing and is not a substitute for proofreading. According to tests, the software currently works successfully 94 % of the time,
- Slovenščina.eu: the results of the project Developing Slovenian in the digital environment include various tools, some of which are suitable for classroom use (e.g., Slovenian-English translator, Summarising, Answering questions), i.e., open-source tools for the Slovenian language in the digital environment.,
- Fran: Fran is a Slovene online language portal that brings together dictionaries, Slovene language resources and collections that have been or are being developed at the Fran Ramovš Institute for the Slovene Language of the Slovenian Academy of Sciences, as well as dictionaries that have been digitised as part of the work of the Institute.

Some useful e-materials are available on various websites, such as e-manuals with videos, animations, interactive exercises and other elements (e.g. interactive workbooks, textbooks, readers on the LiliBine portal; I Textbooks, etc.), e-environments that, in addition to graphics, animations and sound effects, use gamification with virtual environments, rewards and animated characters (e.g. UČIMse), or portals that exploit the use of language technologies for didactic purposes (Pedagogical Grammar Portal) (Verdonik, 2015).

Teaching aids are more accessible and can also be integrated into the classroom. These are, for example, electronic dictionaries (SSKJ, Slovene Vocabulary, Slovene Orthography), Slovene language corpora (Fida and Fida plus, Nova beseda) and online libraries (Urbančič et al., 2021).

3. Methodology

The approach used in our research was triangulated. It should be stressed that the design of a specific method was an evolutionary process and did not refer to any established methodological position at the beginning of the research. Later, when the research was underway, particular attention was paid to experimenting with the triangulation method, especially with a view to comparing the results.

Triangulation in this article is a form of cross-questioning, or the application of a textual analysis approach to address a research question, primarily with the aim of ensuring greater

credibility of the data obtained. Combining qualitative and quantitative methods to extend the evidence, increase the credibility of these findings, and validate the findings of the text analysis method with the findings of the survey (Almalki, 2016, Kuckartz, 2014).

3.1. Purpose of the Research

At the Secondary School of Mechanical Engineering in Škofja Loka, where I teach mathematics, teachers try to introduce innovative approaches, different innovations and use different ICT to support learning and solving different tasks. That's why I've introduced an innovation in maths lessons, where students write a seminar paper on a variety of topics. When I checked the seminar papers, I noticed a lot of mistakes in Slovenian language. Although the students have Slovenian as a subject, the seminar papers had many shortcomings in this area, so I decided to research whether our students know and use tools that help them improve their writing and correct spelling when producing various written products. As I am not the only mathematics teacher and I do not teach all classes, I limited my research to the classes and students that I teach.

The purpose of this research is to investigate whether current students can independently use tools to help them improve their writing and correct spelling.

The second aim was to make secondary school students aware of the tools they can use to help them improve their writing and correct spelling.

3.2. Research Questions

- 1. Are students aware of the tools available for the correction of written products?
- 2. Do students make use of tools for the correction of written products?

3.3. Research Design

In our research, we opted for a comprehensive methodology that combines text analysis with a targeted survey utilizing closed-ended questions. This approach was strategically chosen for a comprehensive evaluation of the effectiveness of e-tools in promoting the correct use of the Slovene language among students when producing seminar papers and other written work.

Triangulation involves the systematic checking and assessment of written content. Triangulation aims to determine whether the use of technology and digital tools for checking and correcting written products is increasing and whether students know and use these tools.

The data and articles were obtained from the relevant literature, which was searched in Google Scholar for key hits on ICT, writing improvement, writing skills, electronic and digital revision tools for better writing.

In addition, we have included a survey component in our research design to gain a holistic perspective. Specifically, we adopted closed-ended questions, a methodological choice that was tailored to elicit specific and measurable responses. This way of asking effectively narrows down the possible answers to a definitive choice or a binary answer of 'yes' or 'no', allowing for a clear and concise insight into students' interactions with e-tools to improve their writing. In addition, we have added open-ended questions, e.g. How do you find online portals from which you can access language advice, dictionaries, corpora, and other language resources (e.g., Fran, CJVTvejice, etc.) from one place?

The aim of the survey is not only to find out about students' awareness and use of e-tools, but also how satisfied they are with them. By asking for direct responses, we can quantitatively

analyse the prevalence of e-tool use and determine whether learners perceive these digital tools as valuable assets in improving their language and composition skills.

The combination of triangulation and survey methodology allows us to conduct a comprehensive assessment, providing both qualitative and quantitative data to draw well-informed conclusions. The results from the text analysis, complemented by the insights garnered from the survey, will help us ascertain the extent to which e-tools contribute to the correct utilization of the Slovenian language by students in their seminar papers.

3.4. Research

The main aim of this research was to investigate the level of familiarity of grammatical and written digital tools by secondary school students in Slovenia at the Secondary Vocational and Technical School of Mechanical Engineering. The aim was also to check whether students were familiar with different tools for improving the Slovenian language, spelling and grammar checking tools and translation tools.

The survey was anonymous using the Slovenian online survey portal 1ka. A total of 57 students from the 1st to 4th year of a secondary engineering school participated (aged 15 – 18 years), representing various fields of study. All respondents were male, as most secondary engineering schools are attended by boys. 11 % of students have the highest score in Slovenian language subject and 2 % the lowest. The rest are somewhere in between: 16 % have a very good grade, 46 % a good grade and 26 % a fair grade.

A closer look at the data reveals that a remarkable 67 % of students are aware of the range of online portals offering language advisors, dictionaries, corpora, and other language resources. This is shown in Figure 1. However, the actual use of these resources is different, at a surprisingly modest 23 %, as shown in Figure 2. Among the subset of students who have engaged with these online portals, there are further nuances. A 12 % praise the usefulness of these digital resources, underlining their effectiveness in improving language skills. Meanwhile, 10 % are satisfied with their experience, while 4 % are slightly dissatisfied. Interestingly, a comparable 4 % express complete dissatisfaction, although without specifying the instances or ambiguities they encountered in the dictionaries. This range of statistics encapsulates a mosaic of perceptions and interactions and sheds light on the complex interplay between students' awareness, use and satisfaction with these online language portals.

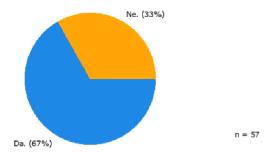


Figure 1. Do you know of any online portals from which you can access language advice, dictionaries, corpora, and other language resources (e.g., Fran, CJVTvejice, etc.) from one place?

From the perspective of many educators, writing is often seen as one of the more difficult productive language skills to acquire and subsequently teach. Its intricate communicative process requires meticulous precision and demands a nuanced focus on accuracy. With the continuing development of technology and the increasing ubiquity of computing resources, the dual function of the computer as both a carrier of feedback and a channel for its transmission

has become increasingly important in both practice and research. This growing importance is partly due to the rapid development of educational technologies. At the same time, the significant increase in the availability of distance learning courses and the emergence of online research supervision have acted as catalysts, further enhancing the role of the computer as a central medium for providing feedback and facilitating its differentiated delivery. Students have the potential to make significant improvements in their writing through computer revision, even in the absence of external feedback (Hyland & Hyland, 2006).

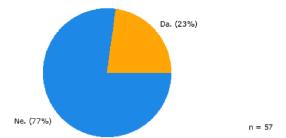


Figure 2. Do you use online portals from which you can access language advice, dictionaries, corpora, and other language resources (e.g., Fran, CJVTvejice, etc.) from one place?

As far as tools for improving the Slovene language in general are concerned, students use dictionaries (4 %), SSKJ (Dictionary of the Slovene Literary Language) (4 %), Fran (4 %) and textbooks and books (2 %).

Also, some authors have also traced that electronic dictionaries embedded in digital learning tools play a key role in the unpacking of online texts. These digital lexicons easily turn their analogue counterparts into a fast and accessible research area. In the field of foreign language learning, the electronic dictionary is an indispensable companion. Learners are often confronted with a wide range of unfamiliar words as they wade through complex passages of foreign language texts. An electronic dictionary can help with this, as it is accessible anywhere and at any time. This makes it easy for learners to decipher the meaning of obscure terms and thus reveal the essence of the subject they are dealing with (Chang et al., 2018).

In a study by Karras, a new training approach with an emphasis on the use of online dictionaries had interesting results. Participants showed a remarkable increase in vocabulary acquisition and use, confirming the quality of this approach. The click-and-click dictionary is one possible approach to improving vocabulary. In the field of lexicography, these two variants are proving to be very popular ways of achieving improvements in linguistic areas (Karras, 2016).

The spelling and grammar checker in Word was known and used by only 19 % of students, which is very low as shown in Figure 3. Students who have used this tool are very satisfied with it (12 %), but 8 % of the respondents are of the opinion that it is useful.

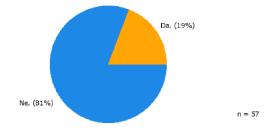


Figure 3. Do you know and use the spelling and grammar checker tool in Word?

The provision of feedback, both from teachers and peers, can occasionally exhibit inconsistencies due to the inherent fallibility of human judgement. This variation in feedback presents an inherent challenge, making the identification of consistent writing problems an arduous task. As a result, students are left to grapple with the divergent messages they receive from their instructors, potentially sowing the seeds of confusion. That's why electronic correction tools, which are becoming more and more common, can be so helpful (Ranalli et al., 2017).

The online translator was known and used by 86 % of the pupils, with 17 % expressing high satisfaction, 60 % reporting satisfaction, and 6 % expressing dissatisfaction. Dissatisfaction was primarily related to accuracy and comprehensiveness issues. This can be seen in Figure 4. For translation, most students use Google Translator (74 %), some of them, 28 %, use Pons (Slovenian translator).

Lim's academic research has explored the field of web portals in depth and revealed their indispensable role in guiding student interpreters through vocabulary acquisition and collection. The clear results of this research showed that through the judicious integration of websites and digital resources, students were more successful in mastering vocabulary. Students were able to build up a rich repertoire of words and phrases more easily and quickly. In addition, the study showed that learners showed a preference for websites in their searches. This study is an example of how technology and pedagogy can be combined and shows that web portals can also lead learners to richer vocabulary acquisition (Lim, 2014).

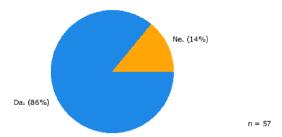


Figure 4. Do you use an online translator?

Much research has been devoted to the development of computer programs that to assist with the assessment and feedback of writing skills. Some of the authors' contributions encourage undergraduate learners to use Grammark and Grammarly as free automated writing assessment tools to improve their writing skills (Perra & Calero, 2019).

The findings from the 17 articles demonstrate the strong impact of social media and wikis on improving learners' writing skills. This body of evidence underscores the compelling rationale for educators and students alike to actively integrate various social media and wiki platforms into the realm of teaching and learning. As such, the incorporation of these dynamic tools is strongly recommended to facilitate an enriched pedagogical experience (Haidari, et. al., 2020).

The results of this research provide an insight into the knowledge and use of digital language materials in the vocational secondary school for the classes I teach. The outcomes derived from the comprehensive survey offer a deep-seated understanding of the degree of familiarity and utilization of digital language materials among our secondary school students.

Notably, the survey findings deftly underscore avenues for potential enhancement within our educational framework. The revelation that certain tools and resources remain underutilized prompts a compelling call to action.

A comprehensive analysis of current research confirms an escalating trend among educators and students to use electronic tools, applications, and various software to facilitate the teaching, assessment, evaluation and correcting of writing skills. This paradigm shift towards digital pedagogy underscores the evolving educational landscape in which technological advances are used to optimise the teaching and learning of writing skills.

The findings also highlight the growing potential of online portals and technologies to improve language skills. Embracing these digital platforms as facilitators of language learning and skill development could stimulate transformative changes in our pedagogical paradigms. In this digital age, fostering a culture that makes full use of these resources could be crucial in teaching writing to students who excel not only in writing term papers, but also in having a better command of the language in a variety of contexts.

The researchers focused on empirical studies that provided research-based evidence of the technology's effectiveness. The technology also enables better learning outcomes for language learners in terms of outcomes, interaction, feedback, impact, motivation, and meta-linguistic knowledge. In all the studies, teachers were the main actors and facilitators (Williams & Beam, 2019). In the present study, however, students use the available electronic tools on their own initiative to revise their own written products.

By implementing these strategies in a thoughtful way, we can achieve a situation where learners are not just passive recipients of knowledge, but active participants who use technological tools to enhance their literacy skills. This research points us towards an approach to education in which innovative digital resources are seamlessly integrated with traditional methods, enabling learners to complement and enhance their writing and language expression in a more holistic way. In addition, modern education is characterised by the need for ubiquitous access, and it is increasingly important that these electronic resources transcend geographical and time constraints. The ability to interact seamlessly with these tools, inside or outside the classroom, is a key factor in enabling a flexible and dynamic learning experience.

4. Conclusion

This study investigated students' knowledge and use of Slovenian tools in their writing. Triangulation was also used in this area. The results show that a large proportion of students are familiar with portals aimed at improving writing skills. So however, we find that a significantly smaller proportion of students actively use these tools. The survey also showed that, on average, students find these tools good and useful.

Regarding the first research question, whether students are familiar with tools to improve their writing, it turns out that students are overwhelmingly familiar with electronic tools on the web. This is confirmed in many studies, such as Shadiev's study (Shadiev & Yang, 2020).

This is consistent with other studies, such as Williams, who found that the integration of technology into the writing classroom led to a discernible improvement in students' compositional techniques and writing skills, while also strengthening their understanding and application of emerging literacies. Students engaged in a dynamic realm in which they conceived, created, and presented a range of multimodal and digital compositions. These creations, diverse in form and rich in content, served as conduits for the embodiment of their insights into literary works and the exploration of contemporary social justice issues. The use of technology has positive aspects such as motivating students to engage and participate in writing tasks and has increased social interaction and collaboration among peers (Williams & Beam, 2019).

Although a significant number of students indicate that they are familiar with these tools, they do not use them as much as teachers do when engaging in the writing process. In relation to the second research question, whether students use tools to improve their writing, students overwhelmingly do not use online electronic tools on their own, nor do they use the text and grammar editor in Word. This is not consistent with the studies (Vinci, 2007, Shadiev & Yang, 2020, Ratheeswari, 2018). In the studies, however, students do use these tools in class, where they do so together with the teacher or at the teacher's request. In our study, however, students had to use these tools on their own initiative.

The survey concludes with a key finding - tools designed to improve writing skills are rarely used by students in independent work. This key finding highlights an important pedagogical dimension. It underlines the need for teachers to take a proactive role in introducing these tools into the classroom environment. Guiding students in the art of using these tools purposefully and accurately should be the cornerstone of pedagogical efforts.

Teachers need to embrace the development of digital literacy and systematically introduce technology as a tool to improve learning outcomes. In the area of writing, students should have access to online tools that allow them to excel not only in writing term papers, but also in the broader area of effective communication.

The findings collected during the review supported the assertions that technology has contributed to enhancing language learners' performance across areas such as outcomes, interaction, feedback, impact, motivation, and meta-linguistic knowledge (Bindu, 2016, Shadiev & Yang, 2020).

ICT should be used thoughtfully in the classroom, according to learning objectives, appropriate methods, and the student population. ICT should therefore be chosen so that students use these tools to help themselves and acquire the knowledge and skills they will need in later life.

5. Limitations and Future Directions

While this study provides insights into the field of learning writing skills with digital tools, it is important to acknowledge certain limitations that underscore the scope of its findings. One of the limitations is the relatively modest and focused sample, which consisted exclusively of pupils in the classes I teach. While this focus allowed for in-depth exploration within a controlled setting, it inevitably raises questions about generalizability to a broader population.

A notable avenue for future research is the consideration of alternative approaches to teaching. The results of this study inevitably traverse an evolving terrain, influenced by the unique context and methods employed. It stands to reason that the results would undoubtedly have taken on different contours if the students had been guided through a subsequent phase of text revision. This revision process, infused with the deliberate integration of specific dictionaries, corpora, and other electronic tools, could potentially provide a deeper understanding of students' grasp of language nuances and their ability to use these digital resources to refine their written expression.

While the present study offers a diverse insight into the intersection of written language skills and digital tools in the context of a selected group of learners, it is also a challenge for further research. In future, we would like to conduct a study on a larger sample, and we should do more detailed instructions would be added.

References

- Almalki, S. (2016). Integrating Quantitative and Qualitative Data in Mixed Methods Research-Challenges and Benefits. Journal of education and learning, 5(3), 288-296. https://doi.org/10.5539/jel.v5n3p288
- Amponsah, B. K., & Stonier, F. (2020). Effects of ICT on Teaching and Learning: A Review of Related Literature. International journal of scientific advances, 1(2), 119-123. https://doi.org/10.51542/ijscia.v1i2.9
- Bindu, C. N. (2016). Impact of ICT on teaching and learning: A literature review. International Journal of Management and Commerce Innovations, 4(1), 24-31.
- Biswas, S. (2023). Role of Chat GPT in Education. Available at SSRN 4369981.
- Espinoza-Celi, V., & Pintado, C. M. (2020). Using" Twitter" to Enhance Writing Skill with Senior High School Students: A Case Study. Teaching English with technology, 20(5), 108-124.
- Calkins, L., & Ehrenworth, M. (2016). Growing extraordinary writers: Leadership decisions to raise the level of writing across a school and a district. The Reading Teacher, 70(1), 7-18. https://doi.org/10.1002/trtr.1499
- Cer, E. (2019). The instruction of writing strategies: The effect of the metacognitive strategy on the writing skills of pupils in secondary education. Sage Open, 9(2), 2158244019842681. https://doi.org/10.1177/2158244019842681
- Chang, Y. H., Liu, T. C., & Paas, F. (2018). Cognitive resources allocation in computer-mediated dictionary assisted learning: From word meaning to inferential comprehension. Computers & Education, 127, 113-129. https://doi.org/10.1016/j.compedu.2018.08.013
- Dash, N. S., & Arulmozi, S. (2018). History, features, and typology of language corpora. Springer Singapore. https://doi.org/10.1007/978-981-10-7458-5
- Frankenberg, G. A., Lew, R., Roberts, J. C., Rees, G. P., & Sharma, N. (2019). Developing a writing assistant to help EAP writers with collocations in real time. ReCALL, 31(1), 23-39. https://doi.org/10.1017/S0958344018000150
- Graham, S. (2019). Changing how writing is taught. Review of Research in Education, 43(1), 277-303. https://doi.org/10.3102/0091732X18821125
- Habibi, F., & Zabardast, M. A. (2020). Digitalization, education, and economic growth: A comparative analysis of Middle East and OECD countries. Technology in Society, 63, 101370. https://doi.org/10.1016/j.techsoc.2020.101370
- Haidari, M., Katawazai, R., & Yusof, S. M. (2020). The use of social media and wikis in teaching writing skills: A review article. https://doi.org/10.1016/j.techsoc.2020.101370
- Hyland, K., & Hyland, F. (2006). Feedback in second language writing: Contexts and issues. Cambridge University. https://doi.org/10.1017/CBO9781139524742
- Karras, J. N. (2016). The effects of data-driven learning upon vocabulary acquisition for secondary international school students in Vietnam. ReCALL, 28(2), 166-186. https://doi.org/10.1017/S0958344015000154
- Kuchai, O., Skyba, K., Demchenko, A., Savchenko, N., Necheporuk, Y., & Rezvan, O. (2022). The Importance of Multimedia Education in the Informatization of Society. IJCSNS, 797.
- Kuckartz, U. (2014). Qualitative text analysis: A guide to methods, practice & using software. SAGE Publications Ltd. https://doi.org/10.4135/9781446288719

- Li, J., Link, S., & Hegelheimer, V. (2015). Rethinking the role of automated writing evaluation (AWE) feedback in ESL writing instruction. Journal of second language writing, 27, 1-18. https://doi.org/10.1016/j.jslw.2014.10.004
- Lim, L. (2014). Engaging student interpreters in vocabulary building: Web search with computer workbench. ReCALL, 26(3), 355-373. https://doi.org/10.1017/S0958344014000123
- Logar, N., Grčar, M., Brakus, M., Erjavec, T., Holdt, Š. A., & Krek, S. (2020). *The Slovenian language corpora Gigafida, KRES, ccGigafida and ccKRES: construction, content, use.* Znanstvena založba Filozofske fakultete: Ljubljana.
- Mohammad, M., Ghazali, N., & Hashim, H. (2018). Secondary School Students' Perceptions on the Use of Google+ towards Improving ESL Writing Skills. International Journal of Emerging Technologies in Learning, 13(9). https://doi.org/10.1017/S0958344014000123
- Mompean, J. A., & Fouz-González, J. (2016). Twitter-based EFL pronunciation instruction.
- Parra, G., L., & Calero S., X. (2019). Automated writing evaluation tools in the improvement of the writing skill. International Journal of Instruction, 12(2), 209-226. https://doi.org/10.1017/S0958344014000123
- Ranalli, J., Link, S., & Chukharev-Hudilainen, E. (2017). Automated writing evaluation for formative assessment of second language writing: investigating the accuracy and usefulness of feedback as part of argument-based validation. Educational Psychology, 37(1). https://doi.org/10.1080/01443410.2015.1136407
- Rassaei, E. (2019). Computer-mediated text-based and audio-based corrective feedback, perceptual style and L2 development. System, 82, 97-110. https://doi.org/10.1016/j.system.2019.03.004
- Ratheeswari, K. (2018). Information communication technology in education. *Journal of Applied and Advanced research*, 3(1), 45-47. https://doi.org/10.21839/jaar.2018.v3iS1.169
- Schreiber, B. R. (2015). "I am what I am": Multilingual identity and digital translanguaging.
- Shadiev, R., & Yang, M. (2020). Review of studies on technology-enhanced language learning and teaching. Sustainability, 12(2), 524. https://doi.org/10.3390/su12020524
- Stubbs, M. (2001). Words and phrases: Corpus studies of lexical semantics. John Wiley & Sons.
- Tondeur, J., Scherer, R., Baran, E., Siddiq, F., Valtonen, T., & Sointu, E. (2019). Teacher educators as gatekeepers: Preparing the next generation of teachers for technology integration in education. British Journal of Educational Technology, 50(3), 1189-1209. https://doi.org/10.3390/su12020524
- Urbančič, M., Bevčič, M., Dagarin Fojkar, M., Drožđek, S., Jedrinović, S., Luštek, A., Retelj, A. and Radovan, M. (2021). *Expert bases for the didactic use of ICT in the educational process in the field of languages*. Založba Univerze: Ljubljana.
- Verdonik, D. (2015). Language-theoretical principles in corpus linguistics. *Slovenian 2.0:* empirical, applied and interdisciplinary research, 3(1), 1-27. https://doi.org/10.4312/slo2.0.2015.1.1-27
- Vinci, M. L., & Cucchi, D. (2007). Possibilities of application of e-tools in education: mobile learning. In *Proc. Conf. on ICT for Language Learning, Florence, Italy*.

- Williams, C., & Beam, S. (2019). Technology and writing: Review of research. Computers & education, 128, 227-242. https://doi.org/10.1016/j.compedu.2018.09.024
- Xu, Q., & Peng, H. (2017). Investigating mobile-assisted oral feedback in teaching Chinese as a second language. Computer Assisted Language Learning, 30(3-4), 173-182. https://doi.org/10.1080/09588221.2017.1297836
- Yundayani, A., Susilawati, S., & Chairunnisa, C. (2019). Investigating the effect of Canva on students' writing skills. English Review: Journal of English Education, 7(2), 169-176.